



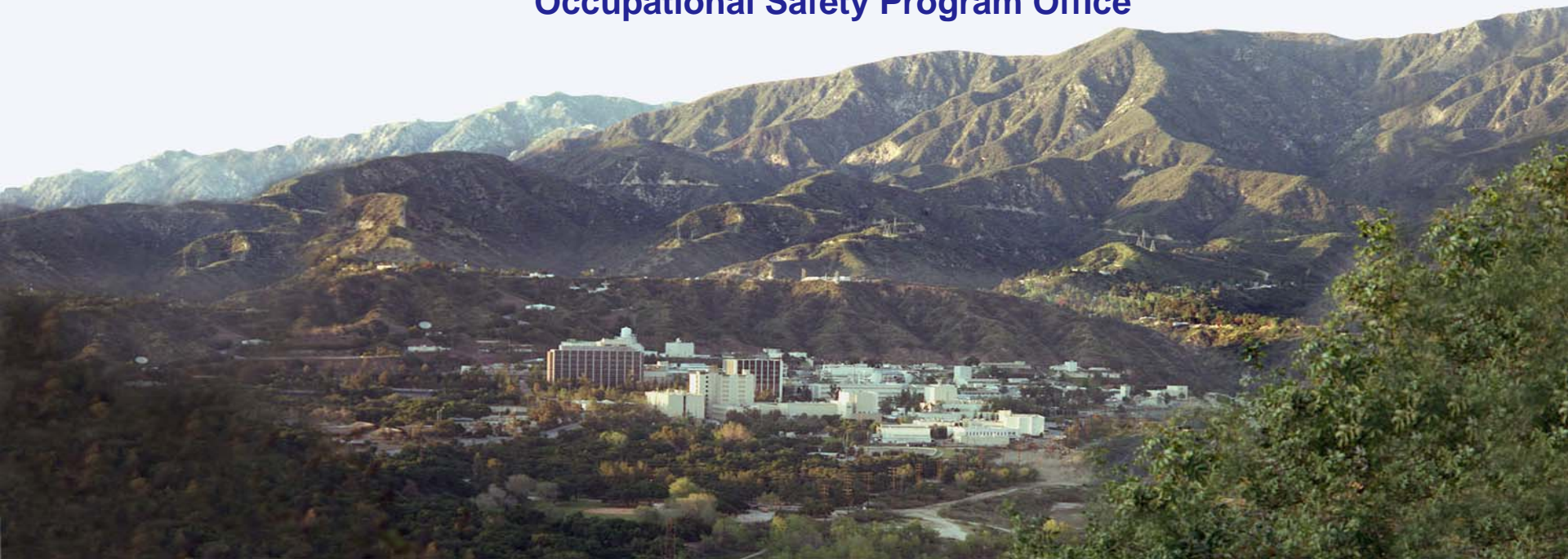
National Aeronautics and  
Space Administration

**Jet Propulsion Laboratory**  
California Institute of Technology  
Pasadena, California

# **JPL Chemical Procurement Program**

**NASA Occupational Health Conference**  
**July 2008**

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**Occupational Safety Program Office**





# JPL's Chemical Acquisition Processes

- Chemicals Procured Via 3 Processes:
  - iProcurement (Web-Based Chemical Catalog)
  - Oracle Purchase Order (PO)
  - Government-Issued Purchasing Card (P-Card)
- Process Depends on Material Hazards, Time Schedule, and Vendor Requirements:
  - Some specialty vendors do not take POs
  - Material to be purchased may be time-critical
  - Hazardous material may require special handling (e.g., explosives, carcinogens) and may only be purchased via PO
- Hazardous Material and End Users are Evaluated to Ensure:
  - Required training completed
  - Hazard assessment performed
  - Completion of required IH sampling
- Evaluations and Assessments are Documented and Tracked



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# Tracking Spreadsheet for Chemical Procurements (P-Card Order Example)

Microsoft Excel - Chemical Order Log FY2008.xls [Shared]

File Edit View Insert Format Tools Data Bluebeam Window Documents To Go Help Adobe PDF

Type a question for help

Q186 Closed

Entries highlighted green mean the operation has already been sampled the assessment is closed.  
Entries highlighted yellow mean information is needed.  
Entries highlighted red mean IH sampling is required.  
Entries highlighted tan mean Industrial Hygiene monitoring is not required based on quantity, controls

This is the P-Card Sheet. Go to Other Sheet for Oracle or i-Procurement

	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q
	DATE OF ORDER	ITEM(S) DESCRIPTION	USER NAME	USER EMP.	SECTION	DATE CONTACTED	DATE REVIEW	OSPO REVIEWER	HAZARD COMMUNICATION / CHEMICAL SAFETY	CRYOGEN SAFETY	PRESSURE SAFETY	LASER SAFETY	PRE-OSR or JHA # (If not required, put N/A)	COMMENTS (Location of use, CAS #, previously ordered, CHP in place, etc.)	IH ASSESSMENT Note whether sampling is required, if not, note why. If sampling is required or desired, note the Priority (see below) Priority 1 - Immediate IH sampling needed based on regulatory standard requirement. Priority 2 - IH sampling to be scheduled as soon as process permits (primarily based on toxicity risk, risk of exposure or regulatory standard). Priority 3 - IH Sampling baseline desired/Best practice (based on quantity, frequency of use, or engineered control application)	IH ASSESSMENT STATUS (Open or Closed)
186	4/1/2008	Thionyl Chloride; Sulfuryl Chloride; Sulfuryl Chloride Fluoride	WILLIAM WEST	114154	346	N/A	4/8/2008	David Uhl	5/24/2006	7/9/2003	5/30/2007	Not Taken	XX-3460-692	MSDSs received. Approved by Amy Ryan. Unable to use procurement process due to small quantities of chemicals being ordered.	Thionyl Chloride CAS # 7719-09-7. CalOSHA PEL = 1 PPM (Ceiling). Sulfuryl Chloride Fluoride CAS # 13637-84-8. OSHA PEL TWA 2.5 mg/m3 (fluorides) Sulfuryl Chloride CAS # 7791-25-5. No OSHA or CalOSHA PELs. All chemicals used in inert atmosphere glove-box. Engineering controls sufficient to prevent employee exposure. No IH sampling required.	Closed

Ready NUM



# iProcurement

- Hazardous materials in catalog pre-evaluated and approved by JPL's OSPO and EAPO
- For quick procurement of frequently used hazard chemicals
- Material Safety Data Sheets (MSDS) are on file
- Pre-qualification process ensures that end users have appropriate training
- Users order directly from catalog without waiting for OSPO or EAPO approval
- User initiates order via a web-based interface, typically filled in 3 to 7 days
- E-mail copy of the order is sent to the OSPO and the EAPO for monitoring and tracking for compliance and hazards evaluation purposes





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# JPL Oracle Purchase Orders

- Electronic requests for authorization to purchase hazardous materials sent via Oracle from any JPL employee to JPL Environmental Affairs Program Office (EAPO) and Occupational Safety Program Office (OSPO) for review
- Both EAPO and OSPO must approve requisitions before purchases are authorized. Considerations include:
  - Is the hazardous material a regulated carcinogen?
  - Has the end user received required training?
  - Is a Hazard Assessment completed for the operation?
  - Have appropriate control measures been implemented?
- OSPO completes an IH assessment to determine need for sampling



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## JPL Chemical P-Card

- Created with NASA approval in 2002, following a successful 2-year pilot program
- Created to provide quicker procurement when time is essential for project success
- Allows engineers and scientists to:
  - Receive materials not available on iProcurement
  - Receive items where a vendor will not take PO
  - Receive time critical items
  - Reduce administrative costs for procurement preparation
- Includes EAPO and OSPO oversight



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## JPL Chemical P-Card (Cont'd.)

- Cardholders and approvers are appointed in each of the technical divisions by the Division Manager
- Usage information and MSDS e-mailed to OSPO and EAPO to review when order placed
- Restricted list of materials that cannot be ordered via P-Card developed by Chemical Safety Committee
  - List was developed with consideration to:
    - Acute hazards (explosives, radioactive materials, toxic/reactive gases)
    - Cal/OSHA regulated regulations (acrylonitrile, benzene, formaldehyde)



# Hazardous Material Procurement Options

